

The Ballarat Naturalist

June 2007



Trailing Goodenia
Goodenia lanata
(Club Logo)

EXCURSION: MOUNT BECKWORTH SUNDAY 6 MAY 2007 **LEADERS: CLAIRE AND PETER DALMAN**

The excursion began with a detour past Lake Wendouree to see the expanding sheet of shallow water at the end of Dowling Street. It is being pumped from Pauls Wetland in Wendouree. Travelling North from Ballarat the landscape is turning a brilliant green following the autumn break a week ago.

At Coghills Creek we saw that willows and other exotic vegetation along the creek had been removed. In the township a Kookaburra was sitting on gate. When we returned in the afternoon it was flying in the same area. Along the road towards Mt Beckworth we saw Brown Falcon, Willy Wagtail, Magpie and Little Raven.

As we approached the southern edge of Mt Beckworth our first stop was at a patch of mature Cork Oaks, which are on the National Tree Register. These trees have thick cork bark which supported a cover of moss and lichen. We found acorns



developing on the trees at the edge of the plantation. We could not find any acorns on the ground but there was ample evidence of kangaroos in the plantation, do they feed on the acorns?

On a felled Radiata Pine bright orange fungus was sprouting from fissures in the bark and other fungi were growing on exposed wood. Nearby the fruit of a Kangaroo Apple was beginning to ripen.

Before we set off to climb the southern ridge of Mt Beckworth a Peregrine Falcon flew overhead but quickly disappeared. We climbed the hill among Manna Gum and Messmate, many of which had hollows. Scats of Brush-tailed Possum were seen on the ground. Cherry Ballart, Hedge Wattle and Black Wattle provided a sparse understorey. The ground layer showed more diversity with grasses, groundsels, Twining Glycine, Wattle Mat-rush, Hairy Raspswort and Prickly Starwort being identified. The identity of the smooth, slender, bright green stems twining around dead grass and twigs created debate. Were these stems Twining Fringe-lily or Slender Dodder-laurel? No suckers were found but this would be expected when Slender Dodder-laurel was climbing on dry material. Growing in large patches were robust bushes of Scented Groundsel that were not grazed. Among the granite boulders were Rock Fern and Necklace Fern growing in sheltered areas.

On a rocky outcrop we reached the goal of our climb: Rock Correa *Correa glabra*. This correa can be identified by its smooth leaves, green or pink-yellow flowers with stamens extending 1 cm beyond the floral tube. The flowering plants attracted Eastern Spinebill and bees that were laden with pollen. Kangaroos had trimmed some plants and others had distorted leaves from viral or fungal attack. From the edge of the rocks we had good views of Mt Bolton to the south and as far as Mt Cole to the west. Common Brown butterflies were flying in sheltered areas. Birds along the ridge included White-throated Treecreeper, Buff-rumped and Striated Thornbill. During our descent we found puffball fungi that were gooey inside, the pupal case of a Goat Moth and many small skinks on rocks and among leaf litter.

During lunch a Red Wattlebird and pair of Wedge-tailed Eagles flew over.

After lunch we entered the eastern side of the reserve along Mountain Creek Road, which had dried off since Claire and Peter had reconnoitred the trip early in the week. We walked along the northern boundary where the bush meets grazing land. Birds were flying around but rarely perched where they could be easily seen. Grey Fantail, Red-browed Finch and Brown Treecreeper were observed. Yellow-tufted Honeyeater and Yellow Robin added colour. A Koala was spotted high in a Yellow Box and looked down at us. Closer to the creek we saw male and female Superb Fairy-wren, Welcome Swallow overhead, and Magpie in the paddock. Two Whistling Kites flew past. Along the Red Gum lined creek, Eastern Rosella flew around hollows, and the harsh "scissors grinder" call alerted us to the Restless Flycatcher. A pair of Spotted Pardalote and a Varied Sitella completed our birdlist. We smelt, then saw, a dead fox as we returned to the cars, probably the result of poisoning.

The 12 participants thanked Claire and Peter for leading an interesting and varied excursion.

AN INTERESTING BOTANIST, BIOLOGIST



Dr Daniel Carl Solander, a Swedish Biologist, Botanist, visited Australia with Captain James Cook and Joseph Banks.

He gave his name to a group of plants called after him, the Solandaceae, often referred to as the Nightshade group *Atropa Belladonna*. They contain a poisonous alkaline called *Atropin hyoscyamine* used medically as an anti spasmodic, and to dilute the pupils of the eye, as a pre medication before anaesthetics, the name comes from the Greek *Atropos*.

Also found in this family is another poisonous alkaline call *Solanine*, found in the immature fruit and green tubers of these plants. This family *Solanaceae* also contain very important food plants used by man—potatoes, tomatoes, eggplant, capsicums and peppers. Tobacco is also part of this family and it too contains a poisonous alkaloid called nicotine, an almost colourless acrid liquid named after the Frenchman Jacques Nicot who introduced Tobacco to France in 1850.

In Australia there are a number of plants of this family, the best known is the Kangaroo apples with their orange, when ripe, fruit which is edible. Tree tobacco (*Micotiana glauca*) is a weed - it was once grown for the leaves to cure scab in sheep.

Belladonna, the lily, takes its name from Bella—lovely or beautiful, and donna, a lady.



Lyndsay Fink

Solanaceae laciniatum—Kangaroo Apple

200 YEAR OLD SEEDS

Two years ago I wrote about a report in the on-line newsletter of the National Archives, Kew, London. In the archives, seeds had been found in a notebook belonging to Jan Teerlink, a Dutch merchant, and a scientist at Kew was going to attempt growing them. In their November newsletter a report showed how successful they had been. The following is the report.

"A few seeds from each of the 32 species were sent to the Millennium Seed Bank. Now three of the 32 species have germinated and the ancient specimens are growing into healthy, vigorous young plants in the glasshouses at Wakehurst Place.

Seed ecologist Matt Daws said:

"This is a fantastic result. The seed was so old and had been stored in some dubious conditions until its arrival at The National Archives, including a ship and the Tower of London. We really did not expect to get anything."

Alistair Hanson, early modern specialist at The National Archives, said:

"This is an exciting discovery and a testament to the hard work that goes into preserving the files at The National Archives. To be able not only to discover these seeds, but also to germinate them helps to bring history to life – literally. I will be keeping my eye on the seeds' developments over the coming months and years."

The first seeds to germinate belonged to the legume **Liparia villosa**. Of the 25 seeds Daws planted, 16 sprouted. The second was labelled **Protea conocarpa** on the original packet, although Kew's scientists have now identified it as almost certainly a species of **Leucospermum**, which is of the Proteaceae family. Just one out of eight seeds of this species germinated.

The exact identity of the last of the trio remains a mystery, although the team know it to be a second legume, this time an **Acacia**.

Matt added:

"We'll have to wait until it flowers to find out what species it is, if it's a tree, we may have a long wait."

This sample consisted of just two seeds. One germinated and is now half a metre tall. The second failed, and microscopic examination revealed old insect damage.

For Kew's scientists, this project has been of more than historical interest.

"According to models of seed survival, even the toughest cereal seeds should have died after so long in such condition", says Matt. "If seed can survive that long in poor conditions, then that's good news for those in the

Millennium Seed Bank stored under ideal conditions."

The seeds were carbon dated by Kew's science team to verify their age and Matt's colleagues are now extracting DNA from live and dead seeds to complete the study."

From National Archive Newsletter

Perhaps I ought to go and look in that old box I brought out fro England!



The Liparia villosa and Protea conocarpa seedlings



Jan Teerlink's red leatherbound notebook which contained the 32 different seed species in small packets

Delphine McDonnell



The Field Naturalists Club of Victoria Inc. The FNCV Environment Fund

The FNCV Environment Fund has been set up to support the objectives of the Club in relation to the environment.

The FNCV Environment Fund has the following purposes:

- To support and finance environmental research, in particular research into the biodiversity of Victoria.
- To support and finance dissemination of information on the natural environment by any legitimate means, including public lectures, seminars, field trips, courses and publications.
- To support and finance practical projects aimed at preserving and enhancing the biodiversity of Victoria.

From 2003 to 2006 the Fund was able to support 15 applications for grants of from \$200 to \$1000 from both the FNCV Special Interest groups and other organizations.

The amount of financial support we can give to research projects depends on the amount of donations received to the Fund. Donations of \$2 and more to the FNCV Environment Fund are tax deductible, and a tax receipt will be issued. A donation form can be downloaded from the website (www.vicnet.net.au/~fncv) and is also available on request from the FNCV Office. (Locked Bag 3, Blackburn, 3130)

FNC BALLARAT MINUTES OF GENERAL MEETING 4TH MAY 2007

Opening

The President, Peter Dalman opened the meeting and welcomed 28 members and visitors.

Apologies were received from Genny Binns, John Morrish, Helen Burgess, and David Sim. Accepted on the motion of Elspeth Swan Seconded: Carol Hall

Minutes of previous meeting.

Summarised in Ballarat Naturalist and confirmed

Correspondence.

IN:

- Field Naturalists Club of Victoria: Field Nats News, May 2007.
- Bendigo FNC: Whirrakee, May 2007.
- Geelong FNC: Geelong Naturalist, May 2007.
- Trust for Nature: Conservation Bulletin, April 2007.
- NT Field Naturalist Club: ANN 2008, 10-18 May 2008 Mary River Region, NT
- Rotary Club of Wendouree: Hobbies and Interest for Men & Boys Expo, 14 October 2007.

OUT:

- Frank Harrap; Letter of appreciation.

- Rolf Schlagloth, Michael Marmach: Guest Speakers.

That the inwards correspondence be accepted and outward correspondence be approved: Moved: John Williams Seconded: Lynsday Fink Carried.

Business Arising from correspondence

The meeting decided that the committee consider the Wendouree Rotary Club Hobbies and Interest for Men & Boys Expo and take the appropriate action.

Reports

- Treasures Report: Opening Balance: \$3881.07; Receipts: \$693.24; Expenditure: \$135.95; Closing Balance: \$4438.37.
- Peter Dalman reported that 3 members attended at lecture at Creswick Forestry School by Alan York on “Fire, Cockatoos and Rats”. The research is being done in South-western Victoria and is investigating the recovery of invertebrate and vertebrate fauna from fire. Alan will speak to the Club at the September meeting.
- Carol Hall reported on the lecture by Graeme Coulson on “Kangaroos: Problems, targets and options” at University of Ballarat. Methods to control population including fencing, deterrents, sterilization and shooting were discussed.

Show and Tell

Lynsday Fink: a polished sample of petrified wood was passed around.

Field Reports

- John Gregurke: Water being pumped from Pauls Wetland into Lake Wendouree at Dowling Street is beginning to attract birds including 5 Black Swan, many Black Duck, several Grey Teal and Masked Lapwing.
- John Mildren: Lake Wendouree at Dowling Street – 6 Black Swan, near Piper’s - 5 Black Swan. North Gardens Wetland – Black Duck, Blue-billed Duck and Australasian Grebe.
- Clarie Dalman: near Dunkeld – 2 lonely Black Swan in a small, very low dam.

Excursion arrangements: Meet at Ballarat Market Place to leave at 9.30am for Mt Beckwith. Leaders: Peter and Claire Dalman.

Syllabus Item: Rolf Schlagloth, Liaison Officer, Australian Koala Foundation: “*A Vision for the Future – Koala Management in Ballarat*”. After being nearly wiped out in Victoria, Koalas have often been introduced to Islands or other isolated areas. Breeding has resulted in large populations exceeding that which the area could support. A Koala Plan of Management is being prepared for the City of Ballarat to ensure protection and enhancement of Koala habitat. Peter Dalman thanked Rolf.

Supper

CALENDAR

June

- Fri 1 Chris Baulch—Club Member *Carl Linnaeus—300 years*
Sun 3 Basalt and Deep Spring—Greg Binns OAM
Tues 26 Committee Meeting 7.30pm

July

- Fri 6 John Tiddy—Naturalist & Photographer *Spring in the Grampians*
Sun 8 Fungi Foray—Les Hanrahan

Biodiversity Across the Borders Conference.

Maintaining Biodiversity in Modified Landscapes

15th June 2007

Mt Helen Campus of University of Ballarat

For more information: http://www.ballarat.edu.au/ard/sci-eng/biodiversity_conf/index.shtml

Committee

President.....Mr Peter Dalman

Vice-President.....Mr Greg Binns

Secretary.....Mr John Gregurke

TreasurerMr Les Hanrahan

Miss Helen Burgess

Mrs Claire Dalman.....

Mrs Carol Hall

Mrs Val Hocking

Mr John Morrish

Ms Nina Netherway (editor)

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Meetings are held at Ballarat Horticultural Centre, cnr. Gregory & Gillies Sts (VicRoads 254 F8) on the first Friday of the month at 7.30pm.

Excursions: Depart from Ballarat Market Place (formerly Creswick Plaza) Creswick Rd., Ballarat (VicRoads 255 M10) at 9.30am unless otherwise specified.

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